(11) **EP 1 555 005 A3** 

(12)

#### **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: **31.08.2005 Bulletin 2005/35** 

(51) Int CI.<sup>7</sup>: **A61H 1/00**, A47C 1/024, A47C 3/02

- (43) Date of publication A2: **20.07.2005 Bulletin 2005/29**
- (21) Application number: 04030739.9
- (22) Date of filing: 23.12.2004
- (84) Designated Contracting States:

  AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
  HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
  Designated Extension States:

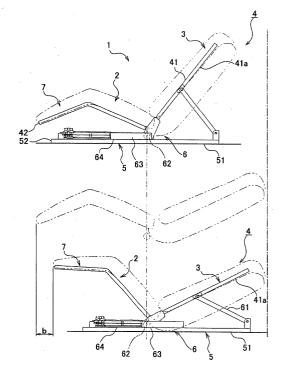
  AL BA HR LV MK YU
- (30) Priority: 19.01.2004 JP 2004010997
- (71) Applicant: Omron Healthcare Co., Ltd. Kyoto 615-0084 (JP)
- (72) Inventors:
  - Kitaura, Hitoshi c/o Omron Healthcare Co.,Ltd. Ukyo-ku, Kyoto-shi, Kyoto 615-0084 (JP)

- Mori, Kentaro c/o Omron Healthcare Co.,Ltd. Ukyo-ku, Kyoto-shi, Kyoto 615-0084 (JP)
- Miki, Akitoshi c/o Omron Healthcare Co.,Ltd. Ukyo-ku, Kyoto-shi, Kyoto 615-0084 (JP)
- Asai, Rika c/o Omron Healthcare Co.,Ltd. Ukyo-ku, Kyoto-shi, Kyoto 615-0084 (JP)
- (74) Representative: Kilian, Helmut Wilhelms, Kilian & Partner Patentanwälte Eduard-Schmid-Strasse 2 81541 München (DE)

### (54) Reclinable chair

(57) A chair (1), comprising a chair body (4) having a seat part (2) and a backrest part (3), and a supporting part (5) for supporting the chair body, is characterized in that a reclining mechanism (6) is provided between the supporting part (5) and the chair body (4) part, for shifting the seat part (2) and the backrest part (3) forward, simultaneously with backward reclining movement of the backrest part (3) in a state where the seat part (2) and the backrest part (3) are fixed at a certain angle.

Fig. 2





## **EUROPEAN SEARCH REPORT**

Application Number EP 04 03 0739

	·	ERED TO BE RELEVANT	T 5-1-			
Category	Citation of document with in of relevant pass	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)		
X Y	US 3 175 860 A (TCH 30 March 1965 (1965 * column 2, line 5 *	-03-30)	1 2-4	A61H1/00 A47C1/024 A47C3/02		
Y X	US 2002/101102 A1 ( 1 August 2002 (2002 * the whole documen	-08-01)	2-4,6-9, 15 11			
х	US 2 480 552 A (COL 30 August 1949 (194		1			
A	* column 3, line 12		2-5			
Α	US 1 438 667 A (SCH 12 December 1922 (1 * the whole documen	922-12-12)	12-14			
Α	US 4 214 790 A (SIE 29 July 1980 (1980- * column 3, line 4 figures 3-5 *		12-14	TECHNICAL FIELDS SEARCHED (Int.CI.7) A61H A47C A61G		
X	9 December 1987 (19	A DEVELOPMENTS B.V) 87-12-09) - line 51; figures 1,3	1			
х	DE 101 14 403 A1 (H 26 September 2002 (		1			
Υ [	* the whole documen	t *	6,7			
Y	US 5 249 838 A (KUL 5 October 1993 (199 * column 2, line 45 figures 1-3 *		8,9,15			
		-/				
	The present search report has	been drawn up for all claims				
<u>-</u>	Place of search	Date of completion of the search	<u> </u>	Examiner		
	Munich	30 June 2005	Geo	rgiou, Z		
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another		T : theory or principle E : earlier patent doc after the filing dat her D : document cited ir	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application			
document of the same category A: technological background O: non-written disclosure P: intermediate document			L: document cited for other reasons  8: member of the same patent family, corresponding document			

2



## **EUROPEAN SEARCH REPORT**

**Application Number** EP 04 03 0739

	DOCUMENTS CONSIDERED		<del></del>		
Category	Citation of document with indication of relevant passages	n, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
X	DE 94 04 143 U1 (HODRY R. HOPPE GES.M.B.H. & C	O. KG, WIEN)	11		
Y	9 June 1994 (1994-06-09 * the whole document *	,	15		
Y	US 4 615 336 A (FIJIMOT 7 October 1986 (1986-10 * column 2, line 21 - l	-07) ine 25; figure 2 *	15		
				TECHNICAL FIELDS SEARCHED (Int.CI.7)	
	The present search report has been di	awn up for all claims			
	Place of search	Date of completion of the search		Examiner	
	Munich	30 June 2005	Geoi	rgiou, Z	
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background		T : theory or princip E : earlier patent de after the filing de D : document cited L : document cited	ocument, but publis ate in the application for other reasons	shed on, or	
A : technological background O : non-written disclosure P : intermediate document		&: member of the same patent family, corresponding document			



**Application Number** 

EP 04 03 0739

CLAIMS INCURRING FEES
The present European patent application comprised at the time of filing more than ten claims.
Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.
LACK OF UNITY OF INVENTION
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:
see sheet B
All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



# LACK OF UNITY OF INVENTION SHEET B

**Application Number** 

EP 04 03 0739

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-5,12-15

A chair comprising a chair body having a seat part and a backrest part, and a supporting part for supporting said chair body and a reclining mechanism for shifting said chair body forward simultaneously with backward reclining movement whereby the angle between the seat part and the backrest part is fixed, further comprising a link linking the support part and the backrest, a shifting part and a (linear or rotary) actuator

1.1. claims: 3-5,15

the chair further comprising a guiding part and the actuator being linear

1.2. claims: 13-15

a wheel and a rotary actuator rotationally driving the wheel

2. claims: 6-10,15

A chair comprising a chair body having a seat part and a backrest part, and a supporting part for supporting said chair body and a reclining mechanism for shifting said chair body forward simultaneously with backward reclining movement whereby the angle between the seat part and the backrest part is fixed, further comprising a front and a rear supporting leg (or a left and right wall) each with a shifting part and a guiding part.

3. claims: 11,15

A chair comprising a chair body having a seat part and a backrest part, and a supporting part for supporting said chair body and a reclining mechanism for shifting said chair body forward simultaneously with backward reclining movement whereby the angle between the seat part and the backrest part is fixed, further comprising four-node-link system and a linear actuator

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

#### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 04 03 0739

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

30-06-2005

	document earch report		Publication date		Patent family member(s)		Publication date
US 317	5860	Α	30-03-1965	NONE			
US 200	2101102	A1	01-08-2002	NONE			· · · · · · · · · · · · · · · · · · ·
US 248	0552	Α	30-08-1949	NONE			
US 143	8667	Α	12-12-1922	NONE			
US 421	4790	A	29-07-1980	AT AU AU CA DE EP JP JP JP	16682 531281 5470880 1097201 3071259 0014068 1179990 55099250 58008249 RE31092	B2 A A1 D1 A1 C A B	15-12-198 18-08-198 31-07-198 10-03-198 09-01-198 06-08-198 30-11-198 29-07-198 15-02-198
EP 024	 8474	Α	09-12-1987	NL EP US	8601457 0248474 4759561	A1	04-01-198 09-12-198 26-07-198
DE 101	14403	A1	26-09-2002	NONE			
US 524	9838	Α	05-10-1993	NONE			
DE 940	4143	U1	09-06-1994	AT AT HU	402142 50993 68288	Α	25-02-199 15-07-199 28-06-199
US 461	 5336	Α	07-10-1986	NONE			
			cial Journal of the Euro		~		